

In the Claims

The following Listing of Claims replaces all prior versions in the application:

LISTING OF CLAIMS

1. (Currently amended) A platform for biological~~Biological~~ or chemical analysis platform, comprising:

at least one fixed support ; and

at least one first mobile support ~~that may be coated with~~ for supporting a reagent, the mobile support being connected to the fixed support by a first flexible support means that may be deflected-deflectable in response to a change in weight supported by the first mobile support, said change in weight being indicative of a binding of an analyte of interest, the flexible support means comprising at least one folded flexible beam with at least one end fixed to the mobile support and a second end fixed to the fixed support, wherein the beam has a spiral shape and the mobile support is formed approximately at the center of the spiral.
2. (Previously amended) Platform according to claim 1, wherein the first mobile support is coated with a chemical reagent or a biological reagent.
3. (Previously amended) Platform according to claim 2, comprising at least one second mobile support associated with the first mobile support, the second mobile support being

connected to the said fixed support by second flexible support means and being coated with a non-reactive material so as to have a mass equal to the mass of the first support coated with reagent.

4. (Previously amended) Platform according to claim 1, wherein part of the structural beam close to its first end forms the mobile support.

5. (Previously amended) Platform according to claim 3, comprising a first flexible support beam for the first mobile support and a second flexible support beam for the second mobile support, the first and second beams having adjacent parallel segments.

6. (Previously amended) Platform according to claim 5, wherein the first and second supports are approximately identical and in which the first and second beams have approximately the same stiffness coefficients.

7. (canceled)

8. (Previously amended) Platform according to claim 1, wherein the mobile support or at least a fixed part to the mobile support has a reflecting surface for a laser beam.

9. (original) Platform according to claim 1, comprising several mobile supports connected to the fixed support.

10. (withdrawn) Device for reading a platform according to claim 1, comprising at least one light source (120, 220) capable of producing a read light beam, means (126, 226) of directing the beam towards at least one mobile support, and means of reception of a reflected beam from the mobile support, and detection of displacements of the said reflected beam.

11. (withdrawn) Device according to claim 10, in which the means (126, 226) of reception of the reflected beam and the means of detecting displacements are provided with several photodetectors.

12. (withdrawn) Device according to claim 10, in which means of directing the beam towards at least one mobile support comprise means (103) for relatively displacing the beam and the platform to scan several mobile supports on the platform with the beam.

13. (withdrawn) Biological or chemical analysis process using one platform conform with claim 1, in which:

- at least one mobile support is coated with a reagent, the weight of which may be modified as a result of a chemical or biological reaction,
- the support is put into contact with a medium to be analysed that could contain compounds that could react with the said reagent in order to modify its weight,
- any displacement of the mobile support is detected by means of a light beam directed towards and reflected away from the mobile support.

14. (withdrawn) Process for manufacturing an analysis platform according to claim 1, in which:

- an etching mask (18) is formed on a substrate (10) with a sacrificial layer (14) arranged between a thin surface layer (16) and a base layer (12), the etching mask having a pattern that defines the location and dimensions of the mobile support and the flexible support means,
- the thin surface layer is shaped by etching according to the pattern of the mask,
- the sacrificial layer is selectively eliminated to release the mobile support and the associated support means.

15. (withdrawn) Process according to claim 14, in which the substrate is of the silicon on insulator (SOI) type in which the base layer and the thin surface layer are made of silicon and in which the buried layer is made of silicon oxide.